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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/583,916

07/20/2006

Paolo Clemente

2503-1219

5071

466 7590 02/21/2008

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EXAMINER

REDDY, KARUNA P

ART UNIT

PAPER NUMBER

1796

MAIL DATE

DELIVERY MODE

02/21/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/583,916	<b>Applicant(s)</b> CLEMENTE ET AL.	
	<b>Examiner</b> KARUNA P. REDDY	<b>Art Unit</b> 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☒ Claim(s) 2 and 3 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. ____.                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>6/21/2006</u> .   | 6) <input type="checkbox"/> Other: ____.                          |

### **DETAILED ACTION**

1. Claims filed on 6/21/2006 are made of record. Claims 1-6 are currently pending in the application.

#### ***Specification***

2. The abstract (line 2) of the disclosure is objected to because of repeating the term "monomers of" twice. Appropriate correction to the typographical error is required. See MPEP § 608.01(b).
3. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o).  
Correction of the following is required: Claim 6 recites "a cement mixture containing 0.01 to 3.00 percent by weight of the cement". It appears that applicant intended for it to be "the cement mixture contains 0.01 to 3.00 percent by weight of the additive of claim 1".

#### ***Claim Objections***

4. Claims 2 and 3 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim.

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Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

Claim 2 recites a molecular weight of 2000 and is outside the range for "monomer V" with  $n = 51$  to 300. When  $n = 51$  the molecular weight of monomer V is about 2332 g/mol ( $X = \text{CH}_3$ ) and 2318 g/mol ( $X = \text{H}$ ).

Claim 3 recites a molecular weight of 11800 which is outside the range for "monomer VI" with  $m = 2$  to 50. When  $n = 50$ , the molecular weight of monomer VI is about 3058 g/mol ( $X = \text{CH}_3$ ) and 3034 g/mol ( $X = \text{H}$ ).

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148

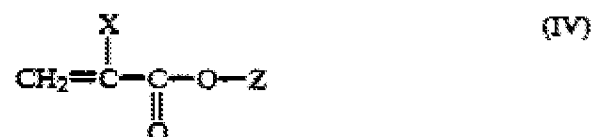
USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

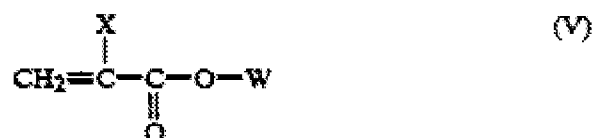
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7. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cerulli et al (US 5, 362,324).

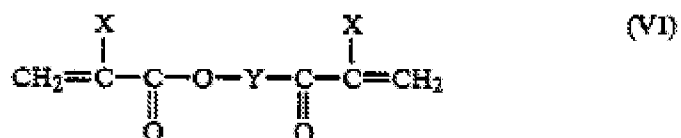
Cerulli et al disclose a superplasticizing additive for concrete which is a terpolymer of a mixture of the monomer having the formula IV, V and VI (column 9, lines 34-54; column 10, lines 22-34) -



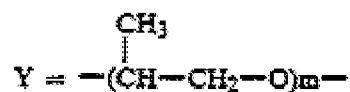
where Z=H, Na, Li,  $\frac{1}{2}$ Ca and X is H or CH<sub>3</sub>;



where W=—(—CH<sub>2</sub>—CH<sub>2</sub>—O—)<sub>n</sub>—CH<sub>3</sub>, n is an integer from 8 to 50 and X is H or CH<sub>3</sub>;



where



and m is an integer from 2 and 50.

The monomer of formula V is polyethyleneglycolmonomethylether-(meth)acrylate of molecular weight from about 200 to 2000. The monomer of formula VI is polypropyleneglycol-di-(meth)acrylate of molecular weight of about 280 to 3100. The amount of acrylic monomers IV and V ranges from 90 to 99.9 percent of the whole polymerized mass and the amount of monomer (VI) ranges from 0.1 to 10 percent of the whole polymerized mass. Cementitious mixture contains from about 0.01 to 3.00 percent by weight of the additive (column 10, lines 35-50). See examples for the weight ratio between acrylic monomers IV and V.

Cerulli et al differs with respect to "n" value of monomer V.

However, it is apparent that the instantly claimed range for  $n = 51$  to  $300$  and that taught by Cerulli et al, of  $n = 8$  to  $50$ , are so close to each other that the fact pattern is similar to the one in *In re Woodruff*, 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir. 1990) or *Titanium Metals Corp. of America v. Banner*, 778 F.2d 775, 227 USPQ 773 (Fed. Cir. 1985) where, despite a slight difference in the ranges, the court held that such a difference did not "render the claims patentable," or, alternatively, that "a *prima facie* case of obviousness exists where the claimed range and prior art range do not overlap, but are close enough so that one skilled in the art would have expected them to have the same properties."

In light of the case law cited above, and given that there is only a slight difference between the range of  $n = 8$  to  $50$  disclosed by Cerulli and the range of  $n = 51$  to  $300$  in the present claims and further, given the fact that no criticality is

disclosed in the present invention with respect to  $n = 51$  to 300, it would have been obvious to one of ordinary skill in the art that  $n = 51$  to 300 recited in the present claims is but an obvious variant of the range disclosed in the prior art, and accordingly, one of ordinary skill in the art would have arrived at the claimed invention. It is noted that, while applicants allege unexpected results, the comparative runs are neither side-by-side nor commensurate with scope of present claims.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KARUNA P. REDDY whose telephone number is (571)272-6566.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571) 272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR

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system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Karuna P Reddy  
Examiner  
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/Karuna P Reddy/  
Examiner, Art Unit 1796

/VASUDEVAN S. JAGANNATHAN/  
Supervisory Patent Examiner, Art Unit 1796